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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/893,869  | 06/29/2001  | Li-Chun Wang         | 2685/5860           | 6553             |
| 23838   | 7590        | 10/12/2004           | EXAMINER            |                  |
| KENYON & KENYON<br>1500 K STREET, N.W., SUITE 700<br>WASHINGTON, DC 20005 |             |                      | NGUYEN, DUC M       |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 2685                |                  |
| DATE MAILED: 10/12/2004   |             |                      |                     |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/893,869

Applicant(s)

WANG, LI-CHUN

Examiner

Duc M. Nguyen

Art Unit

2685

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 16-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 34 is/are allowed.
- 6) ☒ Claim(s) 16-33 and 35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

This action is in response to Applicant's response filed on 6/15/04. Claims 16-35 are now pending in the present application. **This action is made final.**

#### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims **24-25, 27** are rejected under 35 U.S.C. 102(b) as being anticipated by **Brodie** (PCT Pub. No. **WO 9634505**).

Regarding claim **24**, **Brodie** discloses a method for allocating communications resources in a communications system, wherein a cluster of base stations comprise narrow beam tri-sector cell (NBTC), and deployed according to a mutually interlocking arrangement (see Fig. 2 and page 3, lines 15-16), the first tier are of NBTC type I (see Fig. 2, Row n), and the second tier are of type II (see Fig. 2, Row n+1).

Regarding claim **25**, the claim is rejected for the same reason as set forth in claim **24** above. In addition, **Brodie** discloses the frequency resources include at least six frequency sets as claimed (see Fig. 2 and Abstract regarding 8 frequency sets).

Regarding claim **27**, the claim is interpreted and rejected for the same reason as set forth in claim **25** above. In addition, **Brodie** discloses adjacent cells of differing NBTC type have at least one sector with the same frequency set as claimed (see cell with

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frequencies 1, 3, 4 in row n, column i and cell with frequencies 6, 7, 1 in row n+1, column i+0.5 of Fig. 2).

### ***Allowable Subject Matter***

3. Claims 16-23, 28-35 are allowable.
4. Claim 26 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
5. The following is a statement of reasons for the indication of allowable subject matter:

As to claims 16, 21, 30, 34, 35, the cited prior art of record fail to disclose or make it obvious the claimed invention for the reasons as stated in Applicant's response filed on 6/15/04, pages 6-10.

As to claim 26, the cited prior art of record fail to disclose or make it obvious a frequency reuse method that comprises steps as specified in the claim.

### ***Double Patenting***

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321<sup>©</sup> may be used to overcome an actual or provisional rejection based on a non-statutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. As to claims **16-23, 30-33, 35**, the claims are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-8 of U.S. Patent No. **6,002,935**. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are both directed to a frequency reuse method in a communications system wherein each frequency is used 2 times in a cluster of 4 tri-cells repeat pattern.

8. Claims 24-27 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-8 of U.S. Patent No. **6,002,935** issued to **Wang**, and further in view of Brodie (PCT Pub. No. **WO 9634505**).

As to claims **24-27**, Wang discloses all the claimed limitations except for type I and type II of NBTC cells. However, using such type I and type II for frequency planning would have been obvious to one of ordinary skill in the art as disclosed by Brodie (see Fig. 2). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of **Brodie to Wang** for utilizing type I and type II of NBTC cells as claimed, so that the cells can be closely arranged in order to cover all possible service regions.

***Response to Arguments***

9. Applicant's arguments with respect to claims 16, 21, 24, 30, 34, 35 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

(703) 872-9314 (for formal communications intended for entry)

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(for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington VA, Sixth Floor (Receptionist).

Any inquiry concerning this communication or communications from the examiner should be directed to Duc M. Nguyen whose telephone number is (703) 306-4531, Monday-Thursday (9:00 AM - 5:00 PM). Or to Edward Urban (Supervisor) whose telephone number is (703) 305-4385.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-4700.

Duc Nguyen

Oct 5, 2004

A handwritten signature in black ink, appearing to read 'Duc Nguyen', is written over the typed name and date.